**AM5.1 Explain what trigonometry is, how the formulas are derived, and its uses.**

Answer the following questions. You should write 2-3 sentences for each but do not write more than 4 sentences. What is trigonometry? Why was it invented? What are some uses now?

Describe Coterminal angles, reference angles, quadrants, quadrantal angles

Define all trig functions

Derive Law of Sines

**AM5.2 Find 6 trig functions using triangles, circles, graphs, points, and angles**

pg 288 11, 14-16, 20-22

Find 30-60, 45 for all 6 trig functions

Pg 280 30, 37-41, 45-47

Pg 297 30-44

pg 297 22-29 draw in correct quadrant

pg 296 14-21, 4-12

worksheet

**AM5.3 Apply trigonometry to find missing sides and angles (including using inverses)**

Tree activity(collect distance from object and angle to the top)

Pg 302 10-14, 23, 25, 26

Pg 301 ex 4, pg 304 30

pg 309 15-42, 46-48

<http://mathbits.com/mathbits/mathmovies/MeasuringMountains.pdf>

**AM5.4 Derive and apply the Law of Sines and Cosines**

Pg 316 11-16, 32, 33

Pg 324 18-29, 35, 37

pg 330 11-23 odd, 27

worksheets

**AM8.1 Be able to perform operations on vectors and use proper notation**

Pg 490 40,41

Pg 497 15-21odd,36,37

**AM8.2 Apply vectors to real-world situations**

Pg 516-518 15,17,20,23,24,27,31

Pg 545-547 43,44,57,58

**AM 6.1/6.2:   Evaluate common radian values and solve problems using radian values—triangle ratios, arc length, sector area, angular velocity**

Pg 348 16-24

Pg 348 28-33

pg 349 34-52

pg 355 19-26

**AM6.3:  Time Test**

**AM6.4:   Graph 6 trig functions (including shifts) and LT 6.5:  Identify period, phase shift, displacement, amplitude, frequency, even/odd**

pg 364 31-35, 51, 52

Pg 373 3, 7, 17-22

Pg 373 23-35, 57, 58

Pg 384 17-19

Pg 383 3, 14-6

Pg 374 37-53 odd

pg 384 21-33 odd

Pg 401 30, 31, 36

Pg 411 22-25

pg 414 33-38, 41, 43-48,

pg 348 28-30

pg 310 37-43, odd, 22-27

**AM6.6  Model real-world phenomena with trig functions**

Read<http://www.math.umn.edu/~rogness/math1155/soundwaves/>

Look at:<http://www.musicmasterworks.com/WhereMathMeetsMusic.html>

Look at page 359 and ex 5, #53; 372 #6

Pg 363 12, 51, 53

Pg 373 16, 35, 58

Pg 391 7, 13a-d

**AM7.1 Prove trig identities**

pg 427 14-16, 45, 47-50

Pg 434 5-6, 13-19odd

pg 434 21-27 odd

ws 1, 5, 7-9, 25-31 odd

**AM7.2 Find exact values of trig functions using sum, difference, and double-angle identities**

Pg 442 15-21, 34, 42

pg 454 21, 22, 30

**AM7.3 Solve trig equations**

pg 459 5-7, 17, 18

pg 459 19, 21, 23-27, 30, 31, 37, 45, 58

**AM9.1 Graph polar coordinates**

Pg 558 17-21, 32-35, 47, 49

**AM9.2 Switch from polar to rectangular coordinates and equations (and vice-versa)**

Pg 572 14-25